

The Larva of *Nigronia fasciatus* Walker (Megaloptera: Corydalidae)

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INTRODUCTION

Nigronia fasciatus (Walker), subfamily Chauliodinae, a species of the Northeastern United States, ranges southward as far as North Carolina, its habitat being small, rocky woodland streams. The larvae are most often found under rocks or in moss on top of rocks. Pupation occurs in soil adjacent to the streams, under rocks, or occasionally in rotten logs. The adults are rarely observed, but may be seen occasionally in large numbers in the immediate vicinity of the breeding site.

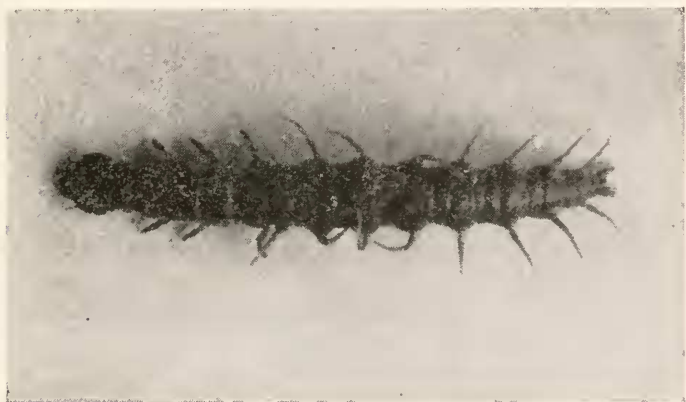
Three larvae of this species were collected near Durham, North Carolina, on October 18, 1955. Similarities were noted between these larvae and those of *Nigronia scrricornis* (Say) which are commonly collected in the same area of North Carolina. It was noticed, however, that the caudal respiratory tubules (tubes bearing the spiracles of the eighth abdominal segment) of these larvae were longer than those of *N. scrricornis* and it was therefore suspected that these larvae belonged to *N. fasciatus*. This suspicion was confirmed on May 15, 1960, when a male of that species was reared from a prepupa which was identical to the three larvae collected in 1955. Through May, 1964, a total of thirty-three adults, including fifteen males and eighteen females, was reared from prepupae, and a number of additional adults were reared from pupae collected from several streams in Durham and Orange counties.

Two larvae of this species collected near Raleigh, North Carolina, are in the North Carolina State University collection.

Larvae of the Genus *Nigronia* Banks

Larvae of the genus *Nigronia*, as well as those of other genera of the subfamily Chauliodinae, such as the western *Neohermes* Banks and *Protochauliodes* Van der Weele (collected by the

writer) and the Australasian *Archichauliodes* (Hamilton, 1940) (see also Cuyler, 1958), lack the tracheal gills on the venter of the abdomen which are characteristic of the larvae of the well-known *Corydalis cornutus* (Linnaeus) of the subfamily Corydalinae. Other differences are given in detail in Cuyler (1958, p. 582). The *Nigronia* larvae differ from those of the closely related genus *Chauliodes* Latreille (Cuyler, p. 583) in the much shorter caudal respiratory tubules and in the more numerous and conspicuous papillae on the abdomen. Larvae of other chauliodine genera and corydaline larvae lack the respiratory tubules, the spiracles being sessile on all abdominal segments.



Nigronia fasciatus Walker, preserved specimen from Durham, North Carolina, October 18, 1955. Enlarged $\times 2.2$.

The following description of the larva of *Nigronia fasciatus* is based on specimens in the collection of the writer. These larvae were fixed by boiling before preservation in alcohol, so as to guard against disfiguration.

Description of Larva of *Nigronia fasciatus*

Maximum length approximately 40 mm; lateral aspect of gena subangulate, convex, the apex of the curve being one-third the

distance from base to apex; pronotum quadrangular, approximately ten per cent wider than long; lateral filament of eighth abdominal segment $1\frac{3}{4}$ to $2\frac{1}{2}$ times longer than width of segment; lateral filament of first segment slightly longer than width of segment; spiracles of abdominal segments 1 through 7 opposite bases of lateral filaments, on distal ends of oblique tubercles which are considerably wider than high; spiracles of eighth segment at distal ends of cylindrical respiratory tubules arising close together near the middorsum at the posterior margin of the segment; respiratory tubules slightly less than length of 9th segment, or 1–1.5 mm long, and somewhat constricted on apical two-thirds.

Labrum bearing short hairs on anterior border and with longer and stouter lateral setae; setae on sclerotized areas of thorax and on legs; short, cylindrical papillae laterally on mesothorax, metathorax, and abdomen; those of posterior abdomen may be several times longer than wide; extent of papillae variable, occasionally present on lateral filaments.

Labrum brown; clypeus tawny-white; frons and vertex dark brown; occiput dark brown, washed with lighter brown on submedian and dorsolateral areas; pronotum brown, faintly embossed with darker brown as follows: dorsolateral comma near apex 1.0 mm long; lateral arrow-shaped mark 1.75 mm long, pointing upwards, with stem laterally concave, beginning at submarginal suture; short vertical dash each side of arrow stem near base; additional dorsolateral comma at base; mesothorax and metathorax tawny; scuta variegated with darker brown; legs tawny-white; abdomen sandy-gray, mottled with paler gray, and with an obscure, pale middorsal stripe; lateral filaments sandy-gray.

Larvae of *Nigronia fasciatus* closely resemble the larvae of the more widespread *Nigronia serricornis* Say, and a third, undescribed species. It differs from these mainly in the greater length and closer proximity of the caudal respiratory tubules. In the other species the respiratory tubules are mid-lateral in position, conical, and less than 1 mm in length.

REFERENCES CITED

- CUYLER, R. D. 1958. The larva of *Chauliodes* Latreille (Megaloptera: Corydalidae). *Ann. Ent. Soc. Amer.* 51: 582-586, figs. 1-10.
- HAMILTON, A. 1940. The New Zealand dobson (*Archichauliodes diversus* Walker): Life history and bionomics. *New Zealand Sci. & Tech. Jour.* 22: 45A-55A.

A New Moth for Pennsylvania

On V.15.65, large numbers of a species of *Ptichodis* Hbn. (Lepidoptera, Noctuidae) were observed near Schwenksville, Montgomery Co., Pa., and two were taken for identification. They proved to be *P. bistrigata* Hbn., a species previously unrecorded for the State. *P. bistrigata* occurs in the Gulf states (Georgia, IV) and locally up the coast. It has been reported from Lakehurst, N. J. (V).

Both sexes were present and fresh. About 60 individuals were seen in a four-acre area. The locality is dominated by red cedar (*Juniperus virginiana*) with fair amounts of redbud (*Cercis canadensis*), and undergrowth of poison ivy, *Rubus*, *Fragaria*, *Andropogon*, and *Tridens*.

ARTHUR M. SHAPIRO, Jessup Fellow,
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